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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/527,745	03/14/2005	Rosemary Gouaisbault	26656U	9172
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THE NATH LAW GROUP				
112 South West Street				
Alexandria, VA 22314				
EXAMINER				
HELM, CARALYNNE E				
ART UNIT		PAPER NUMBER		
1615				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/527,745

**Applicant(s)**

GOUAISBAULT ET AL.

**Examiner**

CARALYNNE HELM

**Art Unit**

1615

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 April 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 24, 26-29, 32-35, 37-40, 42-46, 48-51, 54, 56, 58-61 and 64 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 24, 26-29, 32-35, 37-40, 42-46, 48-51, 54, 56, 58-61, and 64 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

**MAINTAINED REJECTIONS**

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 24, 26-29, 32-35, 37-40, 42-46, 48-51, 54, 56, 58-61, and 64 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. Applicant has exemplified a formulation of the instant invention with the dimethiconol SGM-36 from Dow Corning. Applicant teaches that this particular preferred polymer has a viscosity of 6,400 Pa·s at 25°C and based upon the data shown, this is a dynamic viscosity. Weijermars also teaches SGM-36 from Dow Corning whose Newtonian (dynamic) viscosity at 25°C is nearly 50,000 Pa·s (see figure 2 - Weijermars *Naturwissenschaften* 1986 73:33-34). This constitutes a nearly ten fold difference in viscosity for the same polymer measured at the same temperature.

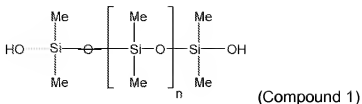
The Weijermars reference presents viscosity data for SGM-36 that was accepted as standard and cited both before and after the time of the invention (see Arbaret et al. *Journal of Structural Geology* 2001 23:113-125 and Marques et al. *Tectonophysics*

2006 415:65-80). So this reference is not a lone representation or beyond the realm of knowledge in the scientific community concerned with such polymers.

In response to a request for information under rule 37 CFR 1.105, applicant was required to provide a listing of polymers that had the claimed viscoelastic properties along with specification data for the SGM-36 used in the invention's specification. Applicant stated that this information was not known or not available and only provided the molecular weight of the "SGM-36" polymer used. This suggests that applicant themselves are not wholly aware of the nature of the material used in their invention, since a molecular formula was not even able to be provided. Therefore applicant has not described the invention in such a manner that it is clear they possessed anything more than the embodiment where the 500,000 molecular weight dimethiconol they called "SGM-36" is combined with an envisioned volatile solvent (e.g. linear dimethicones having 2 to 9 silicon atoms or cyclomethicones having 3 to 8 silicon atoms), optionally a mixture of cyclomethicone D5 and a dimethicone polymer cross-linked in vinyl dimethicone, and optionally an envisioned non-viscosity modifying additive (e.g. colouring agent, perfuming agent, anti-oxidising agent or UV-filter) (see specification pages 6-7, 9, and 11).

### ***Claim Interpretation***

For the sake of application of prior art, the polymer called dimethiconol in the instant claims is interpreted to be hydroxyl-terminated polydimethylsiloxane (pictured below).



### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

The four factual inquiries of *Graham v. John Deere Co.* have been fully considered and analyzed in the rejections that follow.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 24, 26-29, 33-35, 37-40, 44-46, 48-51, 54, 56, 58-61, and 64 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maksimoski et al. (previously cited).

Maksimoski et al. teach a cosmetic formulation that comprises a silicone gum, inert particulates (non-viscoelasticity modifying additive), and a volatile solvent (see claims 1-9; instant claims 24, 34-35, 45-46, 54, 56, and 64). The silicone gum is envisioned as a polydimethylsiloxane, where hydroxyl end-capped polymers (dimethiconol) are particularly envisioned (see claim 6 and column 3 lines 6-8; instant claims 24, 35, 46, and 56). Silicone gum (dimethiconol) is taught present at 0.05-10% (see claim 1; instant claims 24, 28, 35, 39, 46, 50, 56, and 60). Optimization of the proportion of silicone gum (dimethiconol) that would occur as a matter of routine experimentation would be obvious to one of ordinary skill in the art at the time of the invention (see instant claims 29, 40, 51, and 61). In addition, the silicone gum is also contemplated to be a 500,000 molecular weight polymer (see column 3 lines 17-19). Based upon these teachings it would have been obvious to one of ordinary skill in the art at the time the invention was made to employ a 500,000 molecular weight hydroxyl-terminated polydimethylsiloxane (dimethiconol) as the silicone gum. Applicant has indicated on the record that the dimethiconol polymer exemplified in its example has a molecular weight of 500,000. Thus since Maksimoski et al. make obvious a 500,000

molecular weight dimethiconol polymer, it would necessarily have the same viscoelastic properties as that of the applicant (e.g. viscosity around 6400 Pa·s at 25°C,  $G' < G''$  for  $0.3 \text{ Hz} < \omega$  and  $G' > G''$  for  $\omega < 3 \text{ Hz}$  and  $G' = G''$  for some  $\omega$  when  $3 \text{ Hz} < \omega < 3 \text{ Hz}$ ).

The volatile solvent is taught to be a cyclic or linear polydimethylsiloxane with about 3 to about 9 silicone atoms (see column 4 line 51-column 5 line 11; instant claims 26, 37, 48, and 58). This recitation is interpreted to include the compound with two silicone atoms, hexamethyldisiloxane (see instant claims 27, 38, 49, and 59). Maksimoski et al. also teach the method of applying their compositions to keratin fibres, specifically the hair (see column 17 lines 40-41; instant claims 24, 33, 35, and 44). While neither applicant nor Maksimoski et al. explicitly state that "the hair" refers to keratin fibres on the scalp one of ordinary skill in the art would have been well aware that the "hair" care compositions, style retention and hair volume referenced by Maksimoski et al. as well as "the hair" referenced by the instant disclosure refers to the keratin fibres on the scalp (see Maksimoski et al. column 2 lines 14-29 and instant disclosure page 1 line 27). It therefore would have been obvious to one of ordinary skill in the art at the time the invention was made to apply to hair cosmetic composition with dimethiconol (with the claimed viscoelastic properties) as the silicone gum, inert particulates (non-viscoelasticity modifying additive), and hexamethyldisiloxane as the volatile solvent.

The instant claims recite the intended use of "intended to form drops" and "intended notably for the make-up of keratin fibres, in forming drops at their tips upon application". A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to

patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim (see MPEP 2111.02 (II)). Here the composition made obvious by Maksimoski et al. would be capable of performing these functions since it would have the same claimed components. Therefore claims 24, 26-29, 33-35, 37-40, 44-46, 48-51, 54, 56, 58-61, and 64 are obvious over Maksimoski et al.

### **NEW REJECTIONS**

#### ***Claim Objections***

Claim 42 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim, or amend the claim to place the claim in proper dependent form, or rewrite the claim(s) in independent form. The composition of claim 24 is redefined by the recitation of claim 42 instead of being further limited. Claim 24 recites a composition that comprises a dimethiconol and volatile solvent when claim 35 recites that this same composition is a mixture of cyclomethicone D5 and a dimethicone polymer which is crosslinked by vinyl dimethicone.

For the sake of application of prior art, claim 42 is interpreted to recite "...said composition further comprises a mixture of ..."



Claims 24, 27, 32, 35, 38, 42-43, 46, 49, 56, and 59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krzysik (previously cited) in view of Sandewicz et al. (previously cited).

Krzysik teaches a mascara composition that includes a dimethiconol at 10% as well as a volatile solvent, where hexamethyldisiloxane is envisioned (see table I and column 5 lines 31-32 and 43-44; instant claims 24, 27, 35, 38, 46, 49, 56, and 59). The exemplified dimethiconol is taught to have ten thousand repeat units (see column 4 lines 64-66). Both the instant dimethiconol and that of Krzysik have the structure of compound 1 pictured above. The dimethiconol of Krzysik differs from that of the instant invention in its number of repeat units (molecular weight) and associated viscoelastic properties. According to applicant's remarks dated June 20, 2008 a dimethiconol of 500,000 molecular weight has the claimed dynamic viscosity of about 6400 Pa·s. This means that the number of repeat units in the polymer chain is approximately 6754, based upon its molecular structure. It is known that in general, the viscosity of silicone polymers is modified by changes in the number of repeat units. As detailed in MPEP 2144.05 II, "[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." In re Aller, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955)." Here the general conditions of a composition with a linear dimethiconol dispersed in a volatile solvent that is applied to eyelashes are taught (see column 4 lines 39-47; instant claims 24 and 35). Therefore the optimization of the length of the dimethiconol chain (and consequently its molecular weight and viscoelastic properties) would have been obvious as a matter of

routine experimentation to one of ordinary skill in the art at the time of the invention. Applicant has not established the relative degree of the term "about", thus the routine experimentation of one of ordinary skill in the art would lead to a dimethiconol chain with the same length as that instantly claimed (about 6754 repeat units) which would necessarily have the same viscoelastic properties. Although additional components known for utility in cosmetic compositions are envisioned, Krzysik do not teach the presence of a mixture of cyclomethicone D5 and a dimethicone polymer crosslinked by vinyl dimethicone.

Sandewicz et al. teach cosmetic compositions that include a variety of known cosmetic components including dimethiconols (see column 7 lines 1-3 and abstract). In particular, Sandewicz et al. teach that dimethicone/vinyl dimethicone crosspolymer (a mixture of cyclomethicone D5 and a dimethicone polymer crosslinked by vinyl dimethicone) is known for inclusion in such composition to enhance the finish of the composition in use (see column 11 lines 17-24; instant claim 42). Since the final finish of a composition used to enhance the appearance of eyelashes is important, one of ordinary skill in the art would have found it obvious at the time of the invention to include this particular enhancer in the composition of Krzysik.

The instant claims recite the intended use of "intended to form drops" and "intended notably for the make-up of keratin fibres, in forming drops at their tips upon application". A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is

capable of performing the intended use, then it meets the claim (see MPEP 2111.02 (II)). Here the composition made obvious by Krzysik in view of Sandewicz et al. would be capable of performing these functions since it would have the same claimed components. Therefore claims 24, 27, 32, 35, 38, 42-43, 46, 49, 56, and 59 are obvious over Krzysik in view of Sandewicz et al.

### ***Response to Arguments***

Applicants' arguments, filed April 28, 2009, have been fully considered but they are not deemed to be persuasive.

*Regarding rejection under 35 USC 112, first paragraph and declaration filed under 37 CFR 1.132:*

The declaration supplied by Dr. Jean-Louis Grossiord is acknowledged and found to be persuasive in part. Applicant paraphrases much of the remarks by Dr. Grossiord in response to the rejection under 35 USC 112, first paragraph regarding written description. Interestingly, applicant highlights the apparent error in figure 2 of the disclosure but does not accompany these arguments with an amendment to the figures to provide a correction. Dr. Grossiord's remarks appear to attribute the difference between the Newtonian viscosity reported by Weijermars for SGM-36 and the (complex) dynamic viscosity reported by applicant to a difference in the frequency at which these values were measured. However, it is not clear how Dr. Grossiord was able to determine the frequency at which the measurements in the instant case were

performed. Perhaps some inference not readily apparent to the examiner was made, since the instant disclosure does not state that the data shown in figure 2 was generated at 1 Hz, as Dr. Grossiord notes. It may have been the case that the frequency at which the storage and elastic modulus intersect was then used for the constant frequency deformation/strain sweep performed to collect the data for figure 2; however the disclosure, arguments and declaration do not make this connection.

*Regarding rejections under 35 USC 103(a):*

Applicant argues that the non-solubilized particles of Maksimoski et al. are not a non- viscoelasticity modifying agent. Maksimoski et al. describe these particles as inert particulate matter (see column 3 lines 29-30) and this was noted in the rejection. The term inert means deficient in active properties. One of ordinary skill would certainly consider viscoelasticity modification as an active property; thus these inert particles would not be interpreted as viscoelasticity modifying agents. Additionally, applicant suggests that these particles may act to increase the volume of hair by thickening the composition, asserting that such compositions are known to be thick. This is conjecture on the part of the applicant. However, even if these inert particles somehow acted to thicken the composition, this does not mean the composition would not still be able to form drops on keratin fibres. Furthermore, the particles in the composition could just as easily sit on the surface of the hair upon applicant and give the appearance of volume without thickening the composition. MPEP 2114 states that, "while features of an apparatus may be recited either structurally or functionally, claims directed to an

apparatus must be distinguished from the prior art in terms of structure rather than function. In *re Schreiber*, 128 F.3d 1473, 1477-78, 44 USPQ2d 1429,1431-32 (Fed. Cir. 1997)." Here the claimed structural components are made obvious by the invention of Maksimoski et al. Applicant has provided no evidence demonstrating that the composition of Maksimoski et al. does not have the claimed drop forming capabilities, therefore it remains the position of the examiner that the composition of Maksimoski et al. meets the structural and functional limitations of the instant claims.

Applicant argues that the rejection over Krzysik in view of Sandewicz et al. does not teach why one of ordinary skill in the art would be led to a fixed viscosity or a viscosity which is not altered by additional non-viscoelasticity modifying agents. Applicant does not claim a fixed viscosity, but instead claims a range by the recitation of "about 6400 Pa·s". No guidance is provided by the disclosure to indicate the amount of variability allowed by the term "about", so the true breadth of this claimed range is not known and for this reason is interpreted broadly. In addition, applicant also does not claim that the composition is "not altered" by additional non-viscoelasticity modifying agents, but instead that the composition contains no components that prevent the formation of drops on keratin fibres at the concentration used. Therefore, if the composition of the prior art is capable of forming drops on keratin fibres, this limitation is met. The composition of Krzysik in view of Sandewicz et al. makes obvious a composition that meets the limitations of the claimed structural components and does not provide any teachings that would indicate the composition does not form drops on keratin fibres. So absent evidence to the contrary, it remains the position of the

examiner that their composition would also form drops on keratin fibres. Furthermore, MPEP 2114 states that, "while features of an apparatus may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function. In re Schreiber, 128 F.3d 1473, 1477-78, 44 USPQ2d 1429,1431-32 (Fed. Cir. 1997)." Here the claimed structural components are made obvious by the invention of Krzysik in view of Sandewicz et al. Finally, since a chemical is inseparable from its properties and Krzysik in view of Sandewicz et al. make obvious a dimethiconol of the same length as that instantly claimed, it must also have same viscoelastic properties (e.g. dynamic viscosity of about 6400 Pa·s).

Rejections and/or objections not reiterated from previous office actions are hereby withdrawn. The rejections and/or objections detailed above are either reiterated or newly applied. They constitute the complete set presently being applied to the instant application.

### ***Conclusion***

No claim is allowed.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CARALYNNE HELM whose telephone number is (571)270-3506. The examiner can normally be reached on Monday through Thursday 8-5 (EDT).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Woodward can be reached on 571-272-8373. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Caralynne Helm/  
Examiner, Art Unit 1615

/MP WOODWARD/  
Supervisory Patent Examiner, Art Unit 1615